



# Annual Report

CONSERVING NATURAL RESOURCES FOR A BETTER ENVIRONMENT

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## JOHN MARSHALL SWCD 2003 ACCOMPLISHMENTS

Fiscal Year (FY) 2003 was busy at the John Marshall Soil and Water Conservation District (JMSWCD). In the mission to serve and educate the citizens of Fauquier County to ensure the proper stewardship of soil, water and other natural resources, some of the many accomplishments made were:

**Annual Awards Dinner Meeting** – Individuals were recognized for outstanding conservation accomplishments as farm managers, foresters, and educators.

**Chesapeake Bay Cost-Share and Tax Credit Program** – Under these programs, 12 Potomac watershed landowners and 14 Rappahannock watershed landowners received cost-share funds totaling \$167,401.74. One Potomac watershed and 5 Rappahannock watershed landowners received a total of \$7246.86 in tax credits.

**Erosion and Sediment Control (E&S)** - Continuing its role as the Plan Review and Inspection Agency for Fauquier County E&S, the JMSWCD conducted 4907 inspections during FY 2003, up 1113 inspections from FY 2002.

**Educational Programs**—A total of 224 conservation education programs for 3870 individuals were presented. This included programs on point and non-point source pollution, erosion and sediment control, watershed studies, soil studies and others.

**Habitat for Humanity**—JMSWCD donated and helped 4-H members plant approximately 300 white pine seedlings at the Botha Village project near Opal.

**Twelfth Annual Tree Seedling Sale** – A total of 10,035 tree seedlings were sold to 180 individuals.

**Upper Rappahannock Watershed Stream Monitoring Program** – In conjunction with the Culpeper SWCD, JMSWCD volunteers monitored eleven stream sites for macroinvertebrate populations and twelve for ambient water quality.

**Virginia Association of Soil and Water Conservation Districts Educational Foundation, Inc.**— A VASWCD Auxiliary Scholarship in the amount of \$1000 was awarded to Katrina Korcel, a JMSWCD applicant. She is majoring in environmental sciences at VA Tech..

**VA Clean Waterways/Fall River Renaissance**—JMSWCD staff collected approximately 1200 pounds of trash on Rt. 802 at the Rappahannock River bridge.

**Wildlife Seed Mix**—Five hundred pounds of wildlife seed mix were handed out to interested Fauquier County citizens.



JMSWCD staff collected trash at the Rte. 802 bridge near the Rappahannock River as part of the VA Clean Waterways/Fall River Renaissance cleanup.

# VIRGINIA AGRICULTURAL BMP PROGRAM

The Virginia Agricultural Best Management Practices (BMPs) Cost-Share Program has been administered by the District for eighteen years. This program provides financial incentives for farmers and landowners to install 45 different BMPs that improve water quality and conserve valuable soil resources.

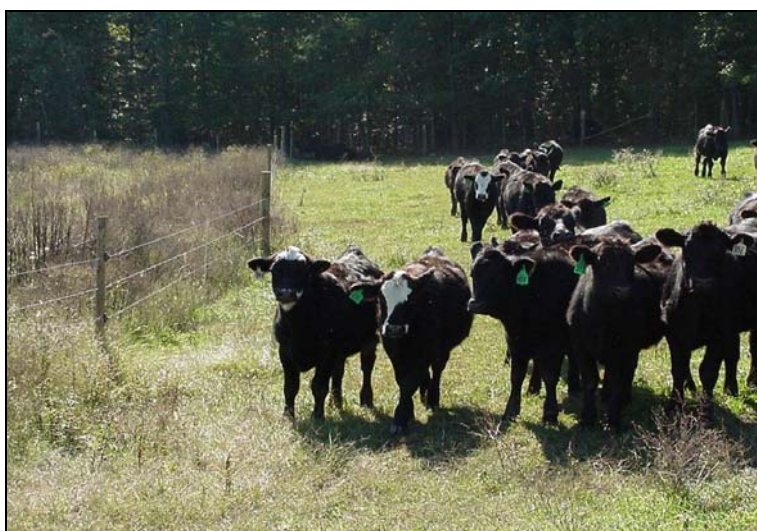
Farmers and landowners that implement agricultural BMPs can qualify for a 75% reimbursement of expenses, as well as a 25% credit on their Virginia State income taxes for their out-of-pocket expenses. The tax credit can be as much as \$17,000 and spread out over a 5 year period. To be eligible for the program, the practice must be designed in consultation with staff

to meet NRCS specifications, included in a conservation plan and approved by the District Board prior to construction. Since 1985, the JMSWCD has paid Fauquier County farmers \$2,660,762.79 to install conservation practices on agricultural land. In FY 2003, \$167,401.74 was paid out for BMPs.

Cost-share applications are taken on a continuous basis but are ranked according to certain criteria. Priority considerations are given to those practices that display the most cost effective means to improve water quality.

## VA AG BMPs COMPLETED IN 2003

Watershed	Practice	Installed	Benefited
Potomac	Grazing Land Protection (SL-6)	23,841 feet of fence	505 acres
Potomac	Reforestation of Erodible Cropland and Pastureland (FR-1)	1	19 acres planted
Potomac	Alternative Water System (SL-6B)	1	25 acres
Rappahannock	Grazing Land Protection (SL-6)	15,327 feet of fence	324 acres
Rappahannock	Reforestation of Erodible Cropland and Pastureland (FR-1)	2	18 acres planted
Rappahannock	Alternative Water System (SL-6B)	3	150 acres
Rappahannock	Continuous No-till Systems (SL-15A)	2	91.5 acres
Rappahannock	Permanent Vegetative Cover on Cropland (SL-1)	2	100 acres planted



**Calves in a rotational grazing system. Note the recovery of riparian vegetation in just one growing season on the other side of the protection fence.**



**A gravity fed trough, supplied by a spring development, provides clean water to livestock. Fencing protects the source and the overflow.**

## USDA FEDERAL PROGRAMS

### Conservation Reserve Enhancement Program (CREP)

The CREP program provides for voluntary agreements with farmers to convert cropland and marginal pastureland adjacent to streams to native grasses and trees, in return for rental payments and other incentives. Fauquier County rental rates are approximately \$75 per acre per year. Participants may also receive 80-100% of the cost of installing eligible conservation practices.

The John Marshall SWCD participated with the Farm Service Agency and the Natural Resources Conservation Service (NRCS) in implementing the Conservation Reserve Enhancement Program (CREP). Nearly 400 acres of riparian hardwood buffers have been planted to date, with excellent survival rate. An additional 45 acres are scheduled for planting in the spring of 2004. Over 27 miles of buffer/stream protection fencing has been installed.

### CREP PROGRAMS COMPLETED IN 2003

Watershed	# Tracts	Acres Planted	Miles Fenced	State Cost-Share	State Tax Credit	State Carry-over
Potomac	14	98.0	9.6	\$28,398.75	\$543.31	\$9,894.00
Rappahannock	25	344.6	17.6	\$121,610.75	\$ 0.00	\$9,432.50
Total	39	442.6	27.2	\$150,009.50	\$543.31	\$19,326.50

**Conservation Reserve Program (CRP) - CRP** encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as native grasses, wildlife plantings, trees, filter strips, or riparian buffers through an annual rental payment for the term of the multi-year contract.

**Environmental Quality Incentives Program (EQIP) –** Through EQIP, farmers and ranchers may receive financial and technical help to install or implement structural and management conservation practices on eligible agricultural land.

**Wildlife Habitat Incentives Program (WHIP) - WHIP** participants agree to implement a wildlife habitat development plan for fish and/or wildlife, and the USDA agrees to provide cost-share assistance for the initial implementation

of the plan. Program participants enter into a 5 to 10 year agreement with the USDA

**Farmland Protection Program (FPP) – FPP** is a voluntary program that provides matching funds to State, Tribal, or local governments and non-governmental organizations with existing farmland protection programs to purchase conservation easements or other interests in land.

**Grassland Reserve Program (GRP) – GRP** helps land-owners conserve grassland, rangeland, pastureland, shrubland and certain other lands and provides assistance for rehabilitating grasslands. GRP offers producers several enrollment options: permanent easements, 30-year easements, rental agreements (10, 15, 20, or 30-year duration) and restoration agreements.

## TECHNICAL ASSISTANCE AND CONSERVATION PLANNING

Designing best management practices, working with farmers to assure proper implementation, and following through after installation to make sure expectations are met are integral parts of technical assistance. This is a service the District provides to all members of the agricultural community, regardless of any program participation, and is the heart of the “working relationship” that has made Conservation Districts a success.

As a member of the Conservation Partnership, which includes the USDA-Natural Resources Conservation Service, VA Department of Conservation and Recreation, VA. Department of Forestry, VA Cooperative Extension, and VA Department of

Game and Inland Fisheries, the District provides technical assistance and information to help agricultural enterprises operate more efficiently and meet their land stewardship goals.

The proper management of land will protect the resources that sustain agricultural operations. Good management requires good planning. The process of conservation planning looks at each individual farm’s natural resource base and management objectives to provide a plan to meet stewardship goals. JMSWCD staff is willing and able to work in the development of a customized conservation plan to address each farms specific needs.

## EROSION AND SEDIMENT CONTROL PROGRAM

The JMSWCD continued its role as the Plan Review and Inspection Agency for Fauquier County, working closely with the Department of Community Development, which administers the program. Throughout FY 2003, the Fauquier County Erosion and Sediment Control Program (E&S) saw tremendous growth. This was highlighted by the number of E&S plans that were reviewed this past year. In FY 2003, 185 E&S plans were reviewed, in contrast to only 116 reviews in FY 2002. As a result of this large increase in plan reviews, the number of bimonthly E&S inspections dropped sharply from 974 in FY 2002 to 779 in FY 2003. However, despite the drop in bimonthly inspections, single family home (SFH) inspections in new subdivisions rose by 25 percent. These numbers show that not only are more projects being reviewed, but the projects are becoming larger and more complex.

The Rural Single Family Home (SFH) Inspection Program continued to grow this year. The JMSWCD acquired the program at the request of Fauquier County's Community Development in the spring of 2002. During its first full year at the District, 1019 inspections on 350 SFH projects were conducted. Working closely with the

Fauquier County Building Department, Stop Work Orders were needed to bring projects in violation into compliance.

JMSWCD staff continued to attend monthly Planning Coordination Meetings and Technical Review Committee (TRC) meetings. The TRC meetings will take on a larger role in an effort to facilitate discussion of projects in the review process between the owner and the review agencies. **The JMSWCD continues to strive to work closely with all project representatives to achieve effective and comprehensive environmental protection during construction.**

During the summer of 2002, Mike Blake was promoted to E&S Program Manager for the JMSWCD. Christine Miller was hired in September 2002 as an E&S inspector and plan reviewer. Sarah Kleckner was hired in September 2002 as the Rural SFH Inspector, with Kerry Wharton replacing Sarah in June 2003. Theresa Bradford, the Assistant County Soil Scientist, continued to assist with Rural SFH inspections. Laura Edmonds, the Engineering/Environmental Planner with Community Development, continued in her role as Program Administrator.



**Stormwater Conveyance Channel**



**Construction Road Stabilization**

## EROSION AND SEDIMENT CONTROL RECORD

	<b>FY 2002 total</b>	<b>FY 2003 1st Qtr (as of 09/03/02)</b>	<b>FY 2003 2nd Qtr (as of 12/31/02)</b>	<b>FY 2003 3rd Qtr (as of 03/31/03)</b>	<b>FY 2003 4th Qtr (as of 06/30/03)</b>	<b>FY '03 Total</b>
<b>INSPECTIONS</b>						
State mandated <i>bi-monthly</i> inspections	974	212	207	181	179	<b>779</b>
State mandated <i>monthly</i> inspections	477	94	90	86	101	<b>371</b>
Ordinance mandated <i>stabilization</i> inspections	92	29	40	36	31	<b>136</b>
<i>Single-family home</i> inspections (in active subdivisions)	2087	566	629	660	747	<b>2602</b>
Single family home inspections* (rural)	164	157	313	282	267	<b>1019</b>
<b>TOTAL INSPECTIONS</b>	<b>3794</b>	<b>1058</b>	<b>1279</b>	<b>1245</b>	<b>1325</b>	<b>4907</b>
<b>PROGRAM ADMINISTRATION</b>						
Formal <i>notices of violation</i>	18	8	15	6	8	<b>37</b>
<i>Stop work orders</i> (enforcement activity)	1	0	0	4	0	<b>4</b>
<i>Single-family home</i> stop work orders**	8	6	58	43	11	<b>118</b>
Active projects (inspected bimonthly/ monthly)	107	87	74	76	81	<b>115</b>
Establishment projects (inspected quarterly)	50	34	41	37	32	<b>47</b>
<i>Single-family homes</i> (in active subdivisions)	358	178	153	175	226	<b>435</b>
Single-family homes (rural) *	105	167	145	196	173	<b>350</b>
Ordinance mandated <i>initial</i> inspections***	31	4	7	1	5	<b>17</b>
Ordinance mandated <i>final</i> inspections***	33	12	3	2	6	<b>23</b>
E&S plans reviewed	116	39	35	53	58	<b>185</b>
Complaint response	70	22	39	31	32	<b>124</b>
Referrals reviewed (preliminary plats, rezoning and special exceptions)	70	22	39	31	32	<b>124</b>

\* Record keeping of rural single-family homes began in 3rd Qtr of FY 2002.

\*\* Single-family home stop work orders began in 4th Qtr of FY 2002.

\*\*\* Due to an increased plan review workload, approximately 60 bi-monthly, 19 monthly and 344 SFH (subdivision) inspections could not be conducted in 2003.

## EDUCATIONAL PROGRAMS

The John Marshall SWCD conducted 224 conservation education programs for 3870 individuals in Fauquier County for FY 2003. District employees worked with young children, school-age students, and adults, providing information on a variety of conservation topics such as point and nonpoint source pollution, water quality, erosion and sediment control, soils, mammal dentition, vertebrates/invertebrates and bird conservation. Programs are customized to meet the needs of the groups requesting the programs. Participating students represented both public and private schools. Adult participants included teachers, chaperones, farmers and other interested citizens.

During FY 2003, the JMSWCD educational programs included:

**Annual Poster Contest** - Tessa Schlichting, from Highland School, won the annual poster contest sponsored by the JMSWCD. This year's theme was "Food for the Future".

**Arbor Day Celebration**—JMSWCD staff helped plan and participated in an Arbor Day celebration at Brumfield Elementary.

**Cedar Run Monitoring Project** – Students from Helen Lathrop's Fauquier High School biology class conducted water quality tests and collected macroinvertebrates on a monthly basis at Cedar Run as part of a long-term educational watershed study.

**Children's Festival**—Interested participants got "up close and personal" with macroinvertebrates at the JMSWCD display at C.M. Crockett Park.

**Conservation Field Day** – Seventh-grade students participated in a full day of conservation and farm management programs. The topics included animal bedding alternatives, milking, care of newborn calves, nutrient management, water quality, soils, forestry, insects, and wildlife habitat conservation.

**Envirothon**—Two teams from Highland School participated in the Area II Envirothon competition held at Montpelier in Orange County.

**Fauquier County Fair**—Educational information was provided to the public by JMSWCD staff at the Fair.

**Fauquier Outdoor Lab Programs** – JMSWCD staff conducted soil studies, aquatic ecology and bird conservation programs at the Outdoor Lab for a variety of grade levels.

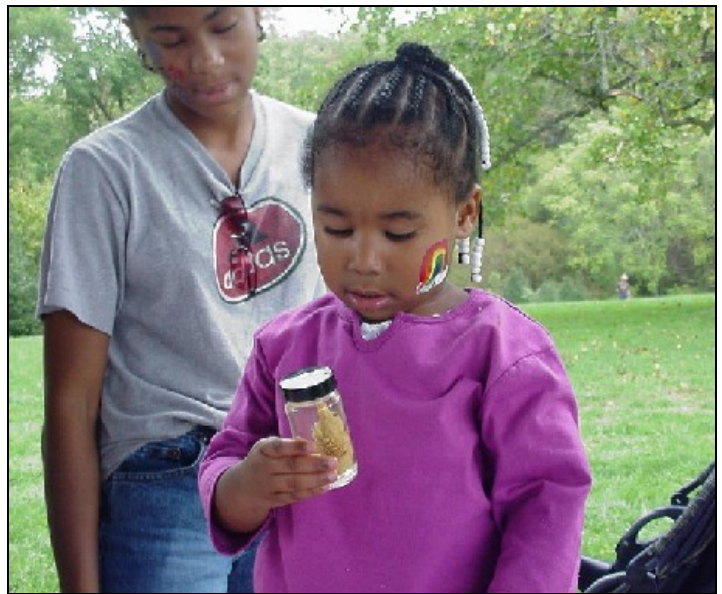
**Marsh Run Monitoring Project** – Students from Dave Crompton's Liberty High School AP biology class conducted water quality tests and collected macroinvertebrates at Marsh Run on a monthly basis as part of a long-term educational watershed study.

**Point and Non-Point Source Pollution** – The *EnviroScape* model was used to demonstrate the impact of everyday rural and urban events on watershed health.

**Pond Study** - Helen Lathrop's biology classes at Fauquier High School conducted water quality tests each month to track the chemical and biological health of the Fauquier Outdoor Lab's pond.

**Soil Studies**—Factors determining soil composition, the characteristics of a typical soil profile and the importance of wise soil management are part of this program. Students analyzed soil samples and constructed soil profiles. The *EnviroScape* watershed model was also used in conjunction with various soil studies lessons.

**Virginia Save Our Streams (VA SOS)** - Training sessions in the VA SOS methodology for macroinvertebrate collection, identification and stream index calculation.



A "conservationist-to-be" gets a closer look at a crayfish at the Children's Festival at C.M. Crockett Park.

tion were held throughout the year for citizens interested in stream monitoring.

**Warrenton Natural History Day Camp**—JMSWCD staff presented a morning-long water quality program to approximately 20 participants. Campers learned through first-hand experience why water quality is important. They played “Macroinvertebrate Mayhem”, learned how to identify macroinvertebrates, conducted monitoring on a tributary of the Rappahannock River, and learned the importance of macroinvertebrates in the ecosystem.

**Youth Conservation Camp** – Van Baker, sponsored by the JMSWCD, attended Youth Conservation Camp at Virginia Tech in July 2003.



Van Baker attended Youth Conservation Camp at Virginia Tech, July 13-19, 2003. His attendance was made possible by a scholarship provided by the JMSWCD.

## UPPER RAPPAHANNOCK WATERSHED STREAM MONITORING PROGRAM

Since Virginians value the quality of the water in the Commonwealth's streams and rivers, an important step was taken two years ago to help protect this valuable resource. Working jointly, the John Marshall SWCD and the Culpeper SWCD each received an initial grant in 2001 from VA DEQ to establish water monitoring stations throughout the upper region of the Rappahannock River. Citizen volunteers were trained in the VA *Save Our Streams* protocol for macroinvertebrate monitoring and DEQ protocol for chemical monitoring. Two additional grants have been received since 2001 to continue this important monitoring.

Forty-six monitoring sites were selected to form a network for monitoring the entire Upper Rappahannock basin. The John Marshall SWCD, which serves Fauquier County, and the Culpeper SWCD, which serves Culpeper, Greene, Madison, Orange and Rappahannock counties, contain all of the Upper Rappahannock basins' geographical area.

Each of the JMSWCD's twelve sites is monitored on a quarterly basis. Macroinvertebrate monitoring using the VA *Save Our Streams* protocol has been conducted for ten cycles. Chemical monitoring, including fecal coliform and suspended solids, was phased in during the third cycle for approximately 22 stations. The collected data is available on the web at [www.rappmonitor.va.nacdn.net](http://www.rappmonitor.va.nacdn.net).

In addition to improving knowledge of the water quality of the Upper Rappahannock watershed, the project engages citizens in the process of data collection. By becoming directly involved in the monitoring process, people will better understand the connection between land use and water quality. Please contact the John Marshall SWCD if you are interested in becoming a chemical or macroinvertebrate volunteer monitor.

**The Conservation Strip** is a quarterly publication of the **JOHN MARSHALL SOIL AND WATER CONSERVATION DISTRICT**, 98 Alexandria Pike, Suite 31, Warrenton, Virginia, 20186-2849.

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***The Vision*** of the John Marshall Soil and Water Conservation District is to serve the citizens of Fauquier County as the leader in ensuring proper stewardship of soil, water and related resources.

***The Mission*** of the John Marshall Soil and Water Conservation District is to provide leadership, technical assistance, information, and education to the citizens of Fauquier County in proper soil stewardship, agricultural methods, and water quality protection so as to ensure the wise use of the county's natural resources.

**BOARD MEETINGS**

The District conducts monthly board meetings to deal with conservation issues and landowners' concerns within Fauquier County. The public, as well as cooperating agencies, are invited to attend District meetings and provide input. Unless otherwise noted, meetings are held the second Wednesday of each month at the JMSWCD office on Alexandria Pike in Warrenton.

**SUPPORT**

The Commonwealth of Virginia supports the John Marshall Soil and Water Conservation District through financial and administrative assistance provided by the Department of Conservation and Recreation.

The Fauquier County Board of Supervisors supports the John Marshall Soil and Water Conservation District through an annual grant and provides administrative assistance through the Department of Finance and the Department of Human Resources, to administer payroll, benefits, and personnel matters.